

What is claimed is:

1. A method for determining an individual's risk for type 1 diabetes comprising:  
detecting the presence of a type 1 diabetes-associated class I HLA-C allele in a  
nucleic acid sample of the individual, wherein the presence of said allele indicates  
the individual's risk for type 1 diabetes.
2. The method of claim 1, wherein the individual is of Asian descent.
3. The method of claim 1, wherein the individual is of Filipino descent.
4. The method of claim 1, wherein the risk for type 1 diabetes is an increased risk.
5. The method of claim 4, wherein the allele is a disease-predisposing allele.
6. The method of claim 1, wherein the risk for type 1 diabetes is a decreased risk.
7. The method of claim 6, wherein the allele is a disease-protective allele.
8. The method of claim 1, wherein the nucleic acid sample comprises DNA.
9. The method of claim 1, wherein the nucleic acid sample comprises RNA.
10. The method of claim 1, wherein the nucleic acid sample is amplified.
11. The method of claim 10, wherein the nucleic acid sample is amplified by a  
polymerase chain reaction.
12. The method of claim 1, wherein the allele is detected by amplification.
13. The method of claim 12, wherein the allele is detected by a polymerase chain  
reaction.
14. The method of claim 1, wherein the allele is detected by sequencing.

15. The method of claim 1, wherein the allele is detected by contacting the nucleic acid sample with one or more polynucleotides that hybridize under stringent hybridization conditions to one or more polymorphisms associated with said allele and detecting hybridization.
16. The method of claim 15, wherein the one or more polynucleotides are each individually complementary to a sequence in exon 2 or exon 3 of a class I HLA-C allele.
17. The method of claim 15, wherein the one or more polynucleotides comprise at least one of the sequences listed in Table 7.
18. The method of claim 17, wherein the allele is HLA-C\*0102.
19. The method of claim 15, wherein the one or more polynucleotides comprise at least one of the polynucleotide sequences listed in Table 11.
20. The method of claim 19, wherein the allele is HLA-C\*1502.
21. The method of claim 1, wherein a combination of two or more alleles are detected.
22. A method for detecting an individual's decreased risk for type 1 diabetes comprising: detecting the presence of a protective class I HLA-A allele in a nucleic acid sample of the individual, wherein the presence of said allele indicates the individual's decreased risk for type 1 diabetes.
23. The method of claim 22, wherein the individual is Asian.
24. The method of claim 22, wherein the individual is a Filipino.
25. The method of claim 22, wherein the nucleic acid sample comprises DNA.
26. The method of claim 22, wherein the nucleic acid sample comprises RNA.

27. The method of claim 22, wherein the nucleic acid sample is amplified.
28. The method of claim 27, wherein the nucleic acid sample is amplified by a polymerase chain reaction.
29. The method of claim 22, wherein the allele is detected by amplification.
30. The method of claim 29, wherein the allele is detected by a polymerase chain reaction.
31. The method of claim 22, wherein the allele is detected by sequencing.
32. The method of claim 22, wherein the allele is detected by contacting the nucleic acid sample with one or more polynucleotides that hybridize under stringent hybridization conditions to one or more polymorphisms associated with said allele and detecting hybridization.
33. The method of claim 32, wherein the one or more polynucleotides are each individually complementary to a sequence found in exon 2 or exon 3 of a protective class I HLA-A allele.
34. The method of claim 32 wherein the one or more polynucleotides comprise at least one of the polynucleotide sequences listed in Table 9.
35. The method of claim 34, wherein the allele is the class I HLA-A\*1101 allele.
36. The method of claim 22, wherein a combination of two or more alleles are detected.
37. A kit for determining an individual's risk for type 1 diabetes comprising:
  - (a) one or more polynucleotides each individually comprising a sequence that hybridizes under stringent hybridization conditions to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-C allele, wherein said nucleic acid

- sequence comprises one or more polymorphisms associated with said allele; and  
(b) instructions to use the kit to determine the individual's risk for type 1 diabetes.
38. The kit of claim 37, wherein one or more of the polynucleotides each individually comprise a sequence that is fully complementary to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-C allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.
39. The kit of claim 37 or 38, further comprising sequencing primers.
40. The kit of claim 37 or 38, further comprising amplification primers.
41. The kit of claim 37 or 38, further comprising reagents for labeling one or more of the polynucleotides.
42. The kit of claim 37 or 38, wherein one or more of the polynucleotides are labeled.
43. The kit of claim 42 that includes one or more reagents to detect the label.
44. The kit of claim 37 or 38, wherein one or more of the nucleic acid molecules are each individually complementary to a polynucleotide sequence in a predisposing class I HLA-C allele.
45. The kit of claim 37 or 38, wherein one or more of the polynucleotides are each individually complementary to a polynucleotide sequence in exon 2 or exon 3 of a predisposing class I HLA-C allele.
46. The kit of claim 37 or 38, wherein one or more of the polynucleotides are each individually complementary to a polynucleotide sequence in a protective class I HLA-C allele.
47. The kit of claim 37 or 38, wherein one or more of the polynucleotides are each individually complementary to a polynucleotide sequence in exon 2 or exon 3 of a protective class I HLA-C allele.

48. The kit of claim 37 or 38, wherein one or more of the polynucleotides comprise at least one of the polynucleotide sequences listed in Table 7.
49. The kit of claim 48 wherein the allele is HLA-C\*0102.
50. The kit of claim 37 or 38, wherein one or more of the polynucleotides comprise at least one of the polynucleotide sequences listed in Table 11.
51. The kit of claim 50 wherein the allele is HLA-C\*1502.
52. The kit of claim 37 or 38, wherein said kit is configured to detect the presence of two or more type 1 diabetes-associated class I HLA-C alleles.
53. A kit for determining an individual's risk for type 1 diabetes comprising:
  - (a) one or more polynucleotides each individually comprising a sequence that hybridizes under stringent hybridization conditions to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-A allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele; and
  - (b) instructions to use the kit to determine the individual's risk for type 1 diabetes.
54. The kit of claim 53, wherein one or more of the polynucleotides each individually comprise a sequence that is fully complementary to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-A allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.
55. The kit of claim 53 or 54, further comprising sequencing primers.
56. The kit of claim 53 or 54, further comprising amplification primers.
57. The kit of claim 53 or 54, further comprising reagents for labeling one or more of the nucleic acid molecules.
58. The kit of claim 53 or 54, wherein one or more of the polynucleotides is labeled.

59. The kit of claim 58, that includes one or more reagents to detect the label.
60. The kit of claim 53 or 54, wherein one or more of the polynucleotides are each individually complementary to a nucleic acid sequence in exon 2 or exon 3 of a protective class I HLA-A allele.
61. The kit of claim 53 or 54, wherein the one or more polynucleotides comprise at least one of the polynucleotide sequences listed in Table 9.
62. The kit of claim 61 wherein the allele is HLA-A\*1101.
63. An array for determining an individual's risk for type 1 diabetes comprising one or more polynucleotides immobilized on a substrate, wherein each polynucleotide individually comprises a sequence that hybridizes under stringent hybridization conditions to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-C allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.
64. The array of claim 63, wherein each polynucleotide individually comprises a sequence that is fully complementary to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-C allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.
65. The array of claim 63 or 64, wherein one or more of the polynucleotides are labeled.
66. The array of claim 63 or 64, wherein one or more of the polynucleotide are each individually complementary to a polynucleotide sequence in a predisposing class I HLA-C allele.
67. The array of claim 63 or 64, wherein one or more of the polynucleotides are each individually complementary to a nucleic acid sequence in exon 2 or exon 3 of a predisposing class I HLA-C allele.

68. The array of claim 63 or 64, wherein one or more of the polynucleotides are each individually complementary to a nucleic acid sequence in a protective class I HLA-C allele.
69. The array of claim 63 or 64, wherein one or more of the polynucleotides are each individually complementary to a nucleic acid sequence in exon 2 or exon 3 of a protective class I HLA-C allele.
70. The array of claim 63 or 64, wherein one or more of the polynucleotides comprise at least one of the polynucleotide sequences listed in Table 7.
71. The array of claim 70 wherein the allele is HLA-C\*0102.
72. The array of claim 63 or 64, wherein one or more of the polynucleotides comprise at least one of the polynucleotide sequences listed in Table 11.
73. The array of claim 72 wherein the allele is HLA-C\*1502.
74. The array of claim 63 or 64, wherein said array is configured to detect the presence of two or more predisposing or protective HLA-C alleles or combinations of predisposing alleles, protective alleles or both.
75. A method for determining an individual's risk for type 1 diabetes comprising: detecting the presence of a type 1 diabetes-associated class I HLA-C allele in a nucleic acid sample of the individual by contacting the nucleic acid sample of the individual with the array of claim 64, wherein the presence of said allele indicates the individual's risk for type 1 diabetes.
76. An array for determining an individual's risk for type 1 diabetes comprising one or more polynucleotides immobilized on a substrate, wherein each polynucleotide individually comprises a sequence that hybridizes under stringent hybridization conditions to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-

A allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.

77. The array of claim 76, wherein each polynucleotide individually comprises a sequence that is fully complementary to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-A allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.
78. The array of claim 76 or 77, wherein one or more of the polynucleotides are labeled.
79. The array of claim 76 or 77, wherein one or more of the polynucleotides are each individually complementary to a nucleic acid sequence in a protective class I HLA-A allele.
80. The array of claim 76 or 77, wherein one or more of the polynucleotides are each individually complementary to a nucleic acid sequence in exon 2 or exon 3 of a protective class I HLA-A allele.
81. The array of claim 76 or 77, wherein one or more of the polynucleotides comprise at least one of the sequences listed in Table 9.
82. The array of claim 81 wherein the protective class I HLA-A allele is HLA-A\*1101.
83. A method for determining an individual's risk for type 1 diabetes comprising: detecting the presence of a type 1 diabetes-associated class I HLA-A allele in a nucleic acid sample of the individual by contacting the nucleic acid sample of the individual with the array of claim 77, wherein the presence of said allele indicates the individual's risk for type 1 diabetes.
84. An array for determining an individual's risk for type 1 diabetes comprising one or more polynucleotides immobilized on a substrate that each individually comprises a polynucleotide sequence that hybridizes under stringent hybridization



conditions to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-A or -C allele comprising one or more polymorphisms associated with said allele, wherein the presence of two or more predisposing or protective HLA-A or -C alleles or combinations of predisposing alleles, protective alleles or both are detected.

85. The array of claim 84, wherein each polynucleotide individually comprises a sequence that is fully complementary to a nucleic acid sequence in a type 1 diabetes-associated class I HLA-A or -C allele, wherein said nucleic acid sequence comprises one or more polymorphisms associated with said allele.